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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/724,374	11/26/2003	Kook Jin Bae	0111-PA-CON	9667

7590 05/13/2005

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EXAMINER

LEE, RIP A

ART UNIT	PAPER NUMBER
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1713

DATE MAILED: 05/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/724,374

Applicant(s)

BAE ET AL

Examiner

Rip A. Lee

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 9 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 February 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 5,8-13 and 22-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 5,8-13 and 22-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This office action follows a response filed on February 11, 2005. Claims 5 and 22 were amended. Claims 6 and 7 were canceled, and new claims 23 and 24 were added. Claims 5, 8-13, and 22-24 are pending.

Election/Restrictions

1. Applicant's election without traverse of the election of Group I, claims 5, 8-13, and 22-24 is acknowledged. The requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 USC § 103

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 5, 8-13, and 22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wehner *et al.* (U.S. 6,084,013) in view of Daniels *et al.* (U.S. 6,245,846).

Wehner *et al.* discloses a stabilizer combination for polyvinyl chloride compositions such comprising least one compound selected from the group consisting of aluminum hydroxides (claims 1 and 10). The composition further contains an alkali metal perchlorate compound (claim 8) such as NaClO₄ used in an amount of 0.001-5 pw based on 100 parts of PVC resin (col. 10, lines 20-22 and 45). The text does not provide guidance in the amount of aluminum hydroxide component to be added (col. 7, line 50 – col. 8, line 32), however, Daniels *et al.* teaches that polyvinyl chloride polymer formulations are stabilized effectively with 30-120 pw of aluminum hydroxide flame retardant (claims 1 and 7). Since this amount is disclosed in the patent, one of ordinary skill in the art would have found it obvious to use 30-120 pw of aluminum hydroxide in the composition of Wehner *et al.* in order to impart flame retardant properties to the polymer, and one of ordinary skill in the art would have expected such a combination to work. The combination of teachings is obvious because both references relate to

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stabilization of PVC with $\text{Al}(\text{OH})_3$. Use of plasticizer and heat stabilizers in the formulation is obvious over the teachings of Wehner *et al.* The patent discusses use of plasticizers (claim 7) such as dialkyl phthalates (col. 15, line 12) and trialkyl mellitates (col. 15, line 38) and metal soaps stabilizers such as calcium, magnesium, and zinc salts of C_{7-18} carboxylic acids (col. 13, lines 25-33 and 49-54).

Response to Arguments

4. The rejection of claims under 35 U.S.C. 102(b) as being anticipated by Wehner *et al.* has been overcome by amendment.

The rejection of claims under 35 U.S.C. 102(b) as being anticipated by Isao *et al.* has been overcome by amendment.

The rejection of claims under 35 U.S.C. 103(a) as being unpatentable over Isao *et al.* in view of Brown has been withdrawn.

Conclusion

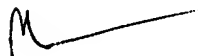
5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rip A. Lee whose telephone number is (571)272-1104. The examiner can be reached on Monday through Friday from 9:00 AM - 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reached at (571)272-1114. The fax phone number for the organization where this application or proceeding is assigned is (703)872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <<http://pair-direct.uspto.gov>>. Should you have questions on the access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll free).



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May 11, 2005



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